

**SEPARATION
OF
BLEND COMPONENTS**

PM3000984103

Source: <https://www.industrydocuments.ucsf.edu/docs/kjmk0001>

**SEPARATION
OF
BLEND COMPONENTS**

PM3000984104

Source: <https://www.industrydocuments.ucsf.edu/docs/kjmk0001>

TYPICAL CONCENTRATIONS OF COMPONENTS

Philip Morris

| | | |
|--------------|-----------|-----------|
| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
| 15% to 20% | 0 to 10% | 0 to 50% |

R. J. Reynolds

| | | |
|--------------|-----------|-----------|
| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
| 15% to 25% | None | 7% to 50% |

Brown & Williamson

| | | |
|--------------|-----------|-----------|
| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
| 11% to 22% | 0 to 14% | 0 to 14% |

Lorillard

| | | |
|--------------|-----------|------------|
| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
| 15% to 22% | None | 11% to 25% |

American

| | | |
|--------------|-----------|-----------|
| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
| 20% to 25% | 0 to 3% | 12% to 50 |

Liggett

| | | |
|--------------|-----------|------------|
| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
| 10% to 15% | 5% to 13% | 20% to 25% |

TYPICAL CONCENTRATIONS OF COMPONENTS

Philip Morris

| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
|--------------|-----------|-----------|
| 15% to 20% | 0 to 10% | 0 to 50% |

R. J. Reynolds

| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
|--------------|-----------|-----------|
| 15% to 25% | None | 7% to 50% |

Brown & Williamson

| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
|--------------|-----------|-----------|
| 11% to 22% | 0 to 14% | 0 to 14% |

Lorillard

| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
|--------------|-----------|------------|
| 15% to 22% | None | 11% to 25% |

American

| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
|--------------|-----------|-----------|
| 20% to 25% | 0 to 3% | 12% to 50 |

Liggett

| <u>Recon</u> | <u>ES</u> | <u>ET</u> |
|--------------|-----------|------------|
| 10% to 15% | 5% to 13% | 20% to 25% |

TWO METHODS OF SEPARATION

Microscopic

- Components from center third of two cigarettes manually separated under microscope
- Fractions isolated and weighed
- Reported as Percent by Weight
- Routine method of analysis for RL, RCB, and ES
- Possible to separate combined small lamina/scrap

Acetone Floatation

- Filler from 18 cigarettes floated in 1L of acetone
- Floated and unfloated portions separated and dried
- Fractions are weighed
- Reported as Percent by Weight
- Routine method of analysis for ET

for routine
How long to
pick, expertise
30 min / center
Whole Rod: 90 min.
5 hrs / day
Training
6 mos. - 4 yr
Not just 1
comp. + compet.

TWO METHODS OF SEPARATION

Microscopic

- Components from center third of two cigarettes manually separated under microscope
- Fractions isolated and weighed
- Reported as Percent by Weight
- Routine method of analysis for RL, RCB, and ES
- Possible to separate combined small lamina/scrap

Acetone Floatation

- Filler from 18 cigarettes floated in 1L of acetone
- Floated and unfloated portions separated and dried
- Fractions are weighed
- Reported as Percent by Weight
- Routine method of analysis for ET

EVALUATION OF ROD TO ROD VARIATION OF BLEND COMPONENTS

Test was designed to:

- A. Determine the rod to rod variation of RL, RCB, ES, and ET
in IM #14 cigarettes**

- B. Determine the variation in the methods**

PM3000984109

Source: <https://www.industrydocuments.ucsf.edu/docs/kjmk0001>

TEST DESIGN

- A. RL, RCB, and ES were separated under the microscope by two subjects

Each subject picked the same 10 cigarettes

In addition each cigarette was re-picked by one subject

Results recorded by each subject

- B. For ET, each subject evaluated 10 cigarettes from same population by the prescribed floatation method

Results recorded by each subject